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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,830	02/23/2000	Donald D. Holbrook	W-3875	3393

7590 03/21/2003

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EXAMINER
HOEY, BETSEY MORRISON

ART UNIT	PAPER NUMBER
1724	18

DATE MAILED: 03/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

HG

Office Action Summary	Application No. 09/511,830	Applicant(s) HOLBROOK, DONALD D.	
	Examiner HOEY, BETSEY	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 March 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-11 and 13-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-11 and 13-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 February 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. The drawing is objected to because it appears to be an informal hand drawn diagram. A formal drawing is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> Or
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6-10 and 13-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Richey et al. in "Improved Ozone Quenching With Calcium Thiosulfate". Richey et al. teach a method for treating water comprising disinfecting the water with ozone in a treatment system, wherein the system includes an ozone quenching system. In the ozone quenching system, an ozone quenching chemical is added directly to the water as it passes through the treatment system, in an amount to reduce the dissolved ozone concentration to non-detectable levels without reacting with chlorine added downstream to produce by-products. The untreated water provided to the treatment system of Richey et al. would not be potable without the treatment, and therefore may be considered as wastewater. Richey et al. teach that calcium thiosulfate has advantages as the ozone quenching chemical.

4. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wickramanayake (column 4, lines 47-52; column 9, lines 56-59).

Wickramanayake teaches a method for treatment of soils contaminated with organic pollutants. In this method of Wickramanayake, the work material is a gas mixture that has passed through soil; the target constituent is ozone; the treating agent is sodium thiosulfate; and the objective is to quench the ozone.

5. Claims 1-4 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hagen et al. (abstract; column 18, lines 47-61). In this method of Hagen et al., the work material is a fluid such as liquid; the target constituent is an oxidant such as ozone; the treating agent is oxidant scavenger particulates which may be sodium thiosulfate particulates; and the objective is to remove the oxidant.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richey et al. Richey et al. disclose the method described above. The claim differs from Richey et al. by reciting a specific rate of calcium thiosulfate application to the water. It is submitted that one of ordinary skill in the art, when practicing the method of Richey et al., would have been expected to arrive at the optimum rate of calcium thiosulfate application by routine experimentation. In fact, Richey et al. disclose that the ozone quenching agent dose is a function of the ozone concentration in the water, and should be adjusted to reduce the dissolved ozone concentration without adding so much of the agent that the

unoxidized agent would react with chlorine added downstream. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the present invention was made, to have applied calcium thiosulfate to the water in the amount recited in instant claim 11, depending on the concentration of dissolved ozone in the water being treated, absent a sufficient showing of unexpected results.

8. It is noted that Applicant's responses submitted February 11, 2002 and March 3, 2003 indicate that it is believed that the claims are allowable over Wickrammanayake and Hagen et al. However, both of these references anticipate claims of the instant application as indicated above.

9. The declaration, Exhibit B of paper #14, submitted September 6, 2002, has been considered but does not overcome the rejections under 102(a). The declaration attempts to show that the Richey et al. reference is not prior art because the reference was not published until after the patent application filing date, and because the testing of calcium thiosulfate by Incline Village was "probably" not performed prior to one year before the patent application filing date. However, the declaration is insufficient to overcome the rejections over the Richey et al. reference.

U.S.C. 102 (a) reads: A person shall be entitled to a patent unless the invention was *known or used by others in this country*, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Although the Richey et al. reference was not presented until after the filing date of the patent application, the reference discloses that ozone-quenching agents were used at a water disinfection plant between 1995 and 2000, and specifically that calcium thiosulfate *was used* as the ozone-quenching agent in February 1999. The Richey et al. reference discloses that the present invention was used by Incline Village General Improvement District; see page 6 of the reference where it is stated, "The District began using calcium thiosulfate (thiosulfate) as the ozone-quenching agent in February 1999...". Therefore, it appears that the invention of the present claims was used by others before the invention thereof by the applicant for patent.

The declaration shows that the calcium thiosulfate ozone-quenching agent was provided to Incline Village by Ag Formulators, Inc., and the present inventor is and was the President of Ag Formulators, Inc. However, this is insufficient evidence to overcome the rejection which states that the present invention was used by others before the invention thereof by the applicant for patent for several reasons. The claims are not directed to an agent, but to a method of using the agent. The Richey et al. reference discloses that a method for quenching ozone from drinking water using chemical agents was in place and in practice beginning in August 1995 by Incline Village, and that calcium thiosulfate was used as the agent beginning in February of 1999. This clearly indicates that the method for quenching ozone from drinking water using calcium thiosulfate was used *by others* (i.e. not solely by the present inventor) beginning in February 1999. The declaration provides no evidence to show that the sole inventor of the present

invention invented this method prior to when the method was *used by others* in February 1999. Therefore, the declaration does not overcome the rejections over the Richey et al. reference.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsey Hoey whose telephone number is (703) 305-3934. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6:00 PM, and on alternate Fridays from 8:30 AM to 5:00 PM.

The fax phone number for official after final faxes for this Group is 703-872-9311 for all other official faxes the number is 703-872-9310, and for unofficial faxes the number is (703) 305-7115. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Betsey M. Hoey

BETSEY MORRISON HOEY
PRIMARY EXAMINER

March 19, 2003